

Amendment and Response

Applicant: Robert L. Battey et al.

Serial No.: 09/812,158

Filed: March 19, 2001

Docket No.: 10961158-6

Title: ELECTRICAL AND FLUIDIC INTERFACE FOR AN INK SUPPLY

REMARKS

This Amendment is responsive to the Office Action mailed January 10, 2003, in which claims 16-19 were rejected. Claims 20 and 22-30 have been allowed. With this Response, claim 16 is amended. Claims 16-20 and 22-30 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected claims 16-19 under 35 U.S.C. 102(b) as being anticipated by Ujita et al., U.S. Patent No. 5,506,611. Ujita et al. is said to disclose a replaceable ink container 21, 51 for use in an off-axis printing system (figure 10). The printing system is said to be responsive to electrical signals produced by the replaceable ink container for controlling printing system parameters (figure 5). The replaceable ink container is said to have a leading edge (front wall of 51, figure 5) defined as that edge of the replaceable ink container first received by the printing system. The replaceable ink container is said to comprise a plurality of electrical contacts 19a, 19b on the leading edge at a first side of the leading edge, the plurality of electrical contacts configured for engaging a plurality of corresponding electrical printer contacts of the printing system 20a, 20b. The ink container is further said to comprise a fluid outlet 15 on the leading edge at a second side of the leading edge. The first side and the second side are said to be positioned adjacent opposite ends of the leading edge (right side of leading edge containing 15 is adjacent right end of the leading edge; left side of leading edge containing 19a, 19b is adjacent the left end of the leading edge, figure 5), such that the fluid outlet 15 is separated from the plurality of electrical contacts 19a, 19b. The fluid outlet 15 is said to be in fluid communication with the replaceable ink container and configured for engaging a fluid inlet 16 of the printing system. An information storage device 22 electrically is said to be connected to the plurality of electrical contacts 19a, 19b. The Examiner further detailed how Ujita et al. anticipates the subject matter of claims 17-19.

Independent claim 16, as amended herein, is directed to a replaceable ink container for use in an off axis printing system that is responsive to electrical signals produced by the ink container for controlling printing system parameters. The replaceable ink container has a leading edge defined as that edge of the ink container first received by the printing system.

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The replaceable ink container includes a plurality of electrical contacts on a first half of the leading edge at a first side of the leading edge. The plurality of electrical contacts are configured for engaging a plurality of corresponding electrical printer contacts of the printing system. The replaceable ink container further includes a fluid outlet on a second half of the leading edge at a second side of the leading edge, wherein the first side and a second side are positioned adjacent opposite ends of the leading edge, such that the fluid outlet is separated from the plurality of electrical contacts. The fluid outlet is in fluid communication with the replaceable ink container and is configured to engage a fluid inlet of the printing system. An information storage device is electrically connected to the plurality of electrical contacts.

By disposing the fluid outlet and the plurality of electrical contacts on different halves of the leading edge and at opposite ends of the leading edge, the fluid outlet and the plurality of electrical contacts of the ink container are separated so as to virtually eliminate the possibility that a fluid leak at the fluid outlet will contaminate the plurality of the electrical contacts. A replaceable ink container of this type is not taught, disclosed or anticipated, either explicitly or implicitly, by Ujita et al.

As seen in figure 5 of Ujita et al., the inkjet recording apparatus 53 includes an ink cartridge 51 removeably mountable to a connecting device 52 of the inkjet recording apparatus 53. The ink cartridge 51 includes a housing 12 that houses a flexible ink bag 13 for containing a supply of ink. An ink supply portion 15 is connected to the ink bag 13 via a conducting tube 15a. The inkjet recording apparatus 53 includes a hollow ink needle 16 installed in the connecting device 52. The ink needle 16 is received by the ink supply portion 15 to supply ink from the ink cartridge 51 to the inkjet recording apparatus 53. The ink cartridge 51 further includes a resistor 19 having information. Terminals 19a and 19b on the ink cartridge 51 are connected to the resistor 19. The terminals 19a and 19b engage pin terminals 20a and 20b on the connecting device 52 so that a control circuit of the inkjet recording apparatus 53 can read the information on the resistor 19.

Clearly, Ujita et al. does not disclose a replaceable ink container **wherein a plurality of electrical contacts are disposed on a first half of the leading edge at a first side of the leading edge of the ink container, and a fluid outlet is disposed on a second half of the leading edge at a second side of the leading edge wherein the first side and the second side are positioned adjacent opposite ends of the leading edge**, such that the fluid outlet is

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separated from the plurality of electrical contacts, as set forth in amended independent claim 16. As plainly seen in figure 5 of Ujita et al., the ink supply portion 15 and the terminals 19a, 19b are disposed in the **same half** of the leading edge of the ink cartridge 51, and are not positioned adjacent first and second halves of the leading edge as presented in amended independent claim 16. By disposing the fluid outlet and the plurality of electrical contacts at opposite ends and in different halves of the leading edge, as claimed in amended independent claim 16, the fluid outlet and the plurality of electrical contacts of Applicant's ink container are separated so as to virtually eliminate the possibility of a fluid leak at the fluid outlet contaminating the plurality of electrical contacts. In Ujita et al., because of their close proximity, a fluid leak at the ink supply portion 15 would almost certainly contaminate the terminals 19a and 19b, thereby making the inkjet recording apparatus 53 of Ujita et al. inoperable.

With the amendment to independent claims 16 and for the reasons provided above, Applicants believe the rejection of claim 16 under 35 U.S.C. 102(b) has been overcome and should be withdrawn. Such action is respectfully requested.

Dependent claims 17-19 are directly or indirectly dependent upon amended independent claim 16. As discussed above, Applicants believe independent claim is now in condition for allowance. Therefore, consideration and allowance of dependent claims 17-19 is also requested.

Allowable Subject Matter

The Examiner has indicated claims 20 and 22-30 are allowed. Applicants respectfully acknowledge the Examiner's allowance of those claims.

In light of the above, Applicant believes independent claim 16 and the claims depending therefrom are in condition for allowance. Accordingly, allowance of claims 16-19 is respectfully requested.

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CONCLUSION

With this Amendment and Response, Applicants believe claims 16-20 and 22-30 are all in allowable condition. Notice to that effect is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to either Matthew B. McNutt at (512) 231-0531, Facsimile (512) 231-0540 or Kevin B. Sullivan at Telephone No. (858) 655-5228, Facsimile No. (858) 655-5859. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

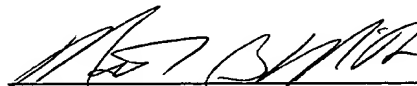
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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Commissioner for Patents, Washington, D.C., 20231 on this 31st day of March, 2003.

By 

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